

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001935**Date Inspected:** 24-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

Bay 4 Tower:

The QA Inspector randomly observed ZPMC welder Jiang Jingteng ID Number 046830, utilizing the Submerged Arc Welding (SAW) Process in the 1G Position (Flat Groove) with ZPMC Weld Procedure Specification (WPS) WPS-B-T-3221-B-U3c-S-1, to weld the fill pass on Tower Diaphragm Sub-Assembly SA287(E) to p306(E). The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 627 amps, 31 volts with a travel speed of 627 millimeters (mm) per minute for Mr. Jiang. The weld parameters appeared to comply with contract requirements.

Bay 7 OBG:

The QA Inspector randomly observed ZPMC Welder Jiang Qing Quan ID Number 044774, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-223-TC-U4b-F-1, to weld 2 repairs to the Complete Joint Penetration (CJP) Weld at WJ FB007-02-43 on the inside of the split flange on Floor Beam Web Sub-Assembly FB007-02. The work is being performed in accordance with ZPMC Critical Weld Repair (CWR) B-CWR038 and ZPMC Weld Procedure Specification (WPS) WPS-345-FCAW-2G-FCM-Repair. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang,

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monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC Welders Hong Yong Li ID Number 044807 and Dan Deyin ID Number 044795,, utilizing the FCAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-223-TC-U4b-F-1, to weld the CJP Welds at the tapered ends of various stiffeners on Floor Beam Sub-Assembly FB006-02. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 299 amps, 29.4 volts with a travel speed of 303 mm per minute for Mr. Hong and 307 amps, 29.2 volts with a travel speed of 294 mm per minute for Mr. Dan. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC Welders Ren Jinzhu ID Number 044837 and Wang Changfa ID Number 058102, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-B-P-2212-FCM, to weld the flange to web on Floor Beam Diaphragm FB014-06. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 227 amps, 26.6 volts with a travel speed of 208 mm per minute for Mr. Ren and 228 amps, 26.8 volts with a travel speed of 207 mm per minute for Mr. Wang. Weld parameters appeared to comply with contract requirements.

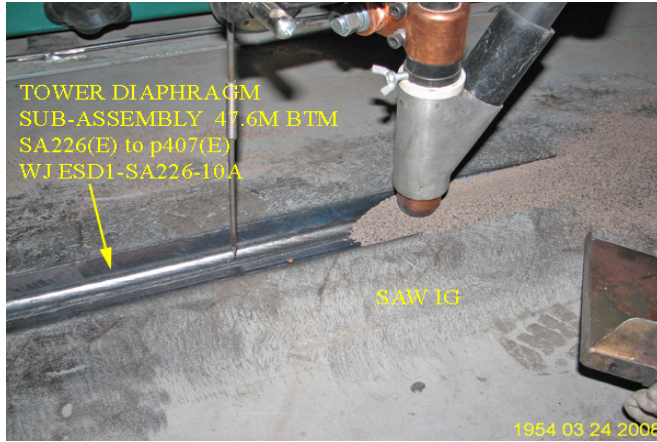
Bay 8 Tower:

The QA Inspector randomly observed ZPMC welder Wang Lan Ying ID Number 046830, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-3221-B-U3c-S-1, to weld the fill pass on Tower Diaphragm Sub-Assembly SA226(E) to p407(E). The QA Inspector randomly observed ZPMC CWI Xu Le Feng monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 650 amps, 30.6 volts with a travel speed of 482 mm per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Ma Ying ID Number 045270, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-3221-B-U3c-S-1, to weld the fill pass on Tower Diaphragm Sub-Assembly SA270 to p249. The QA Inspector randomly observed ZPMC CWI Xu Le Feng monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 600 amps, 30.5 volts with a travel speed of 490 mm per minute. Weld parameters appeared to comply with contract requirements.

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Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Hager,Craig

QA Reviewer